

## ABSTRACT OF THE DISCLOSURE

In a laser device and a light signal amplifying device with an optical fiber containing a laser activating substance in the inside for emitting a light beam from the end part in the case the laser activating substance is excited, fixed in a dense state at least partially by an optical medium, a polysilsesquioxane including a repeating unit represented by a general formula  $\text{RSiO}_{1.5}$  (wherein R represents an alkyl group, a hydroxyl group, a phenyl group, a vinyl group, a 2-chloroethyl group, a 2-bromoethyl group, a hydrogen, a heavy hydrogen, a fluorine, or an oxygen. However, one having R entirely as an oxygen is excluded. Moreover, R may be different per each repeating unit.) is used as the optical medium.